

REMARKS

This is a full and timely response to the Office Action dated March 17, 2008.

Claims 3-5, 7-9, 17, 18, 22, 23, and 25-29 are currently pending, with claims 3, 7, 17, 18, 22, and 23 being independent.

Claims 3, 7, 17, 18, 22, and 23 are amended.

New claims 25-29 have been added. No new matter has been added.

Applicant respectfully requests reconsideration of the present application in view of the following remarks.

Specification

The title of the invention is objected to because it is not descriptive. Applicant hereby amended the title to “An output apparatus for transforming and outputting bitmap data” that is descriptive. Therefore, the objection should be withdrawn.

Claim 10 is objected to because of informalities. Applicant canceled claim 10. Therefore, this objection is now moot. Thus, this objection should be withdrawn.

Double Patenting

Claims 10-12 and 24 provisionally rejected under 35 U.S.C. §101 as claiming the same invention as that of claims 1-2 and 5 of copending Application No. 10/521,355.

Claims 10-12 and 24 are canceled. Therefore, this rejection is now moot. Thus, this rejection should be withdrawn.

Claim Rejections – 35 U.S.C. 101

Claims 20-24 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. This rejection is respectfully traversed.

Claims 20, 21 and 24 are canceled. Therefore, this rejection for claims 20, 21 and 24 is now moot. Thus, this rejection should be withdrawn.

Further, claims 22 and 23 are amended. By the amendment attached hereby, the claimed invention in claims 22 and 23 is directed to statutory subject matter. The support for this amendment is found throughout the Specification, for example, in the following:

Typically, the data production unit 263 can be formed by using an MPU, a memory, and the like, and all processes assigned thereto are realized by software that is stored in a recording medium such as a ROM. However, hardware implementation (using a dedicated circuit) is also feasible. (Specification page 23, line 33 – page 24, line 3).

Further, MPEP 2106.01(I) recites “[s]ince a computer program is merely a set of instructions capable of being executed by a computer, the computer program itself is not a process and USPTO personnel should treat a claim for a computer program, without the computer-readable medium needed to realize the computer program's functionality, as nonstatutory functional descriptive material... (omitted)... When a computer program is recited in conjunction with a physical structure, such as a computer memory, USPTO personnel should treat the claim as a product claim.” Here, claims 22 and 23 recite physical structure, namely, “a computer readable medium.” Therefore, the rejection is now moot because it should be treated as a product claim. Accordingly, Applicant respectfully requests withdrawal of this rejection.

Claim Rejections – 35 U.S.C. 112

Claims 2-6, 16, 17, 21 and 22 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This rejection is respectfully traversed.

Claims 2, 6, 16 and 21 are canceled. Therefore, this rejection for claims 2, 6, 16 and 21 is now moot. Thus, this rejection should be withdrawn.

Further, claims 3-5, 17 and 22 are amended. More precisely, the term at issue “certain calculation” is amended to “predetermined calculation.” The Office Action on page 5 states that there is no definition of the calculation. However, the Specification clearly states the definition as “a calculation for executing a certain transformation on the bitmap data acquired by the bitmap data acquisition unit 103.” (Specification, page 23, lines 15-17). Further, the Office Action on page 5 states that it is unclear whether coordinate information is obtained from vector data or bitmap data

and it is unclear how the calculation works. Applicant respectfully submits that coordinate information is obtained from bitmap data, not from vector data. This is clearly stated in lines 15-33 on page 23 of the Specification, as set forth below.

The term "certain calculation" would mean a calculation for executing a certain transformation on the bitmap data acquired by the bitmap data acquisition unit 103. By performing a certain calculation on "bitmap data before transformation," i.e., bitmap data that has not undergone a certain transformation, "bitmap data after transformation," i.e., bitmap data that has undergone the certain transformation is created. When coordinate information of the bitmap data before transformation is handed over to the function of this certain calculation, coordinate information of the bitmap data after transformation is obtained. Using this function, the way in which bitmap data is transformed can be altered. Assuming that with the help of the function (f) coordinate information (x, y) of the bitmap data before transformation is altered to coordinate information (X, Y) of the bitmap data after transformation, the function (f) is described as (X, Y)=f(x, y). The coordinate information is provided for specifying a position on bitmap data, and can be composed of coordinate values of two dimensions, for example. Data configuration of the coordinate information is irrelevant. In this manner, using the function of a certain calculation as described above enables coordinate information within bitmap data before transformation to change into coordinate information after transformation, and thereby, bitmap data after transformation is produced. It should, however, be noted that in the fourth embodiment, the inverse function of a certain calculation is employed for producing bitmap data after transformation... (emphasis added)

Further, Applicant respectfully submits that the predetermined calculation is determined by a user's needs. Therefore, there is no one determined calculation.

By the foregoing amendment and explanation, the claimed invention is now clear. Therefore, the rejection should be withdrawn.

Claim Rejections – 35 U.S.C. 102

Claims 1, 2, 6-9, 15, 16, 18, 20, 21 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishida et al. (U.S. Pat. 6,232,978). Applicant respectfully traverses this rejection.

Claims 1, 2, 6, 15, 16, 20 and 21 are canceled. Therefore, this rejection for claims 1, 2, 6, 15, 16 and 21 is now moot. Thus, this rejection should be withdrawn.

Independent claim 7 now amended, requires "a data transformation unit for transforming part of said bitmap data according to said rule, checking whether or not the information on certain

part of bitmap data obtained by the bitmap data acquisition unit matches the information on certain part of bitmap data retained by the rule retention unit; and, if matched replacing the information on certain part of bitmap data obtained by the bitmap data acquisition unit with a pair of information indicating vector data having an image resulting from the transformation of the certain part.” *Ishida* does not teach this limitation either expressly or inherently.

Moreover, the Office Action on page 7 takes the position that “*a transformation rule retention unit for retaining at least one bitmap data transformation rule that is composed of a pair of information on certain part of the bitmap data*,” as recited in claim 7, is corresponding to an outline extraction unit in *Ishida* (Fig. 1, Col. 2, lines 4-10). In the current application, the bitmap data is already prepared and stored in the transformation rule retention unit before transformation. (Embodiment 2, Fig. 12). In contrast, *Ishida* does not teach that the bitmap data is prepared and stored in the transformation rule retention unit before transformation. Further, the portions of *Ishida* cited in the Office Action are related to Figs. 10 and 11. Fig. 10 of *Ishida*, illustrates the scanning of the raster-scan binary image data outputted by the binary image acquisition unit 1, as well as the scanning of the raster-scan binary image data which enters the outline extraction unit 2. (Fig. 10, Col. 2 lines 1-4). Fig. 11 of *Ishida* illustrates an example of extraction of contour edge vectors between a pixel of interest and the pixels neighboring. (Fig. 11, Col. 2, lines 16-18). Accordingly, Fig. 10 is not related to a “transformation rule” of before, and Fig. 11 is not related to a “transformation rule” of after. Instead of using the existing “transformation rule,” *Ishida* discloses extracting means for extracting contour vectors of an image from a binary image each time. Thus, *Ishida* fails to disclose a transformation rule retention unit as recited in Applicant’s claim 7. Therefore, claim 7 is not anticipated by *Ishida* and this rejection should be withdrawn.

Dependent claims 8 and 9 depend from claim 7, and independent claims 18 and 23 recite the same amended limitation of claim 7. Therefore, claims 8, 9, 18 and 23 should also be allowable for the same reason for claim 7. Withdrawal of the rejection is therefore respectfully requested.

Claims 10, 11, 19 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by *Koga et al. (U.S. Pat. 6,556,711)*. Applicant respectfully traverses this rejection.

Claims 10, 11, 19 and 24 are canceled. Therefore, this rejection is now moot. Thus, this rejection should be withdrawn.

Claim Rejections – 35 U.S.C. 103

Claims 3-5, 17 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Ishida et al.* (U.S. Pat. 6,232,978) in view of *Okazaki* (U.S. Pat. 4,736,399) and *Tuomi et al* (U.S. Pat. 7,061,507). Applicant respectfully traverses this rejection.

Claim 24 is canceled. Therefore, this rejection for claim 24 is now moot. Thus, this rejection should be withdrawn.

Independent claim 3 now amended, requires “a color determination unit for determining a color of a position, if the first vector data is in a passing relationship with a dot represented by the second coordinate information, the color of the position specified by the second coordinate information being determined based on the position specified by said second coordinate information, said first vector data produced by said vectorization unit and a color of a dot on said bitmap data, and then setting up said color determined thereby for said target dot specified by said first coordinate information.”

MPEP 2143.01 states that the prior art must suggest the desirability of the claimed invention. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). Here, the Office Action fails to make a *prima facie* case of obviousness at least for the following reasons.

Claim 3 recites “a data production unit for producing bitmap data after transformation based on an inverse function of a predetermined calculation, said bitmap data, and said first vector data.” The Office Action acknowledged this claimed feature is not taught by *Ishida*. Applicant respectfully submits that this neither *Tuomi* nor *Okazaki* cure the defects of *Ishida* for at least the following reasons.

Ishida discloses that **a bitmap data after transformation (high-quality image in the raster-scan format) is obtained directly from contour vectors** (Col. 11, lines 59-63) that are

extracted from a bitmap data before transformation (low-quality image) (Col. 1, lines 23-26, Col. 11, lines 48-58). More precisely, *Ishida* states that on the basis of the outline vector data obtained by the outline extraction unit 12, the binary image reproduction unit 14 outputs, in a raster-scan format, a binary image obtained by filling the region bounded by the vector figure expressed by the outline vector data (col. 13, lines 44-49). Therefore, *Ishida* does not use directly a bitmap data before transformation (low-quality) to determine a color of the position and to obtain a bitmap data after transformation (high-quality image). In contrast, claim 3 requires producing bitmap data after transformation based on ... the bitmap data before transformation. New claim 25 clarifies this regard.

Okazaki is silent about a color determination unit for determining a color of a position, if the first vector data is in a passing relationship with a dot represented by the second coordinate information, the color of the position specified by the second coordinate information being determined based on the position specified by said second coordinate information, said first vector data produced by said vectorization unit and a color of a dot on said bitmap data, and then setting up said color determined thereby for said target dot specified by said first coordinate information as amended in claim 3.

Further, In *Tuomi*, the triangle has the color data in it. Therefore, to obtain a color of the position, it is not necessary to refer to bitmap data before transformation. Therefore, bitmap data before transformation does not even exist in *Tuomi*.

Therefore, as stated, *Okazaki* and *Tuomi* do not cure the defects of *Ishida* since there was no motivation to combine found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. Therefore, the Office Action fails to establish *prima facie* obviousness and thus, withdrawal of this rejection is respectfully quested.

Dependent claims 4 and 5 depends from independent claim 3. Claim 17 recites the same amended limitation of claim 3. Therefore, it also is not rendered obvious by the cited references for

at least the same reasons for claim 3 as presented above. Thus, withdrawal of the rejection with respect to claims 4, 5 and 17 is therefore respectfully requested.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Koga et al.* (U.S. Pat. 6,556,711) in view of *Ishida* (U.S. Pat. 6,232,978). Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Koga et al.* (U.S. Pat. 6,556,711) in view of *Okazaki* (U.S. Pat. 4,736,399) and *Tuomi et al* (U.S. Pat. 7,061,507). Applicant respectfully traverses this rejection.

Claims 12-14 are canceled. Therefore, this rejection for claims 12-14 is now moot. Thus, this rejection should be withdrawn.

CONCLUSION

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. IRD-0004 from which the undersigned is authorized to draw.

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